NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Faculty of Computing and Informatics

DEPARTMENT OF INFORMATICS

QUALIFICATION: BACHELOR OF INFORMATICS, BACHELOR OF COMPUTER SCIENCE	
QUALIFICATION CODE: 07BACS, 07BAIF	LEVEL: 7
COURSE: PROJECT MANAGEMENT	COURSE CODE: PTM721S
DATE: JANUARY 2019	SESSION: 2
DURATION: 3 hours	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Prof Nomusa Dlodlo Dr Edmore Chikohora Mr Nkululeko Mthembo Ms Irja Shaanika
MODERATOR:	Mr Mashitishi Benson Phurutsi

THIS QUESTION PAPER CONSISTS OF 6 PAGES
(Excluding this front page)

INSTRUCTIONS

1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.

SECTION A: Multiple Choice Questions   **[15 marks]**

1. Which of the following documents contains the detailed description of work packages in a project?
   a)   WBS dictionary
   b)   Activity list
   c)   Project scope statement
   d)   Project scope management plan
   e)   Business case

2. The WBS can best be thought of as an effective tool for _____ communications:
   a)   Team
   b)   Project management
   c)   Stakeholder
   d)   Management
   e)   Customer

3. The scope management plan is included in which of the following documents:
   a)   Project management plan
   b)   WBS
   c)   The scope statement
   d)   Project specifications
   e)   Stakeholder analysis

4. The project charter is created by the:
   a)   Project manager
   b)   Sponsor
   c)   President of the company
   d)   Customer
   e)   Project team

5. What is an easy way to document schedules in a project?
   a)   WBS
   b)   Gantt chart
   c)   PERT chart
   d)   A+B+C
   e)   Nome of the above

6. In which project management phase is the critical path method applied:
   a)   Initiation phase
   b)   Execution phase
   c)   A+B
   d)   None of these

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7. What is the term used for the process required to ensure that the project includes all the work required, and only the work required to complete the work successfully
   a) Project scope management
   b) Bill of materials
   c) WBS
   d) Scope verification
   e) None of the above

8. The project scope statement furnishes the basis for:
   a) Clearly-defined acceptance criteria
   b) Provides links to the client's functional management groups
   c) Allowing the project to move to the next phase
   d) A way to provide updated information to the accounting department
   e) A+B+D

9. PERT is useful for determining how much time a project needs before completion
   a) True
   b) False
   c) Irrelevant
   d) Crashing
   e) None of the above

10. Project managers often illustrate progress with a(n) _____ showing key deliverables and activities
    a) Gantt chart
    b) Network diagram
    c) PERT chart
    d) WBS
    e) None of the above

11. _____ is a network diagramming technique used to predict total project duration
    a) Gantt chart
    b) Critical path analysis
    c) Critical chain scheduling
    d) WBS
    e) All of the above

12. Changes to the project scope do not affect the following:
    a) Human resources
    b) Risk exposure
    c) Cost
    d) Quality
    e) The set price of the stock market

13. If the earned value is equal to the actual cost, it means:
    a)   The project is on budget and schedule
    b)   Schedule variance index is 1
    c)   There is no schedule variance
    d)   There is no cost variance
    e)   A+B+C

14. Which of the following is not an element of the project charter?
    a)   The authority level of the project manager
    b)   Detailed control account and work package descriptions
    c)   The business need that the project was undertaken to address
    d)   High-level risks
    e)   None of the above

15. A document called _____ is created by decomposing the project scope into smaller, more manageable elements
    a)   Scope statement
    b)   Network logic diagram
    c)   Work Breakdown structure
    d)   Requested change
    e)   All of the above

Section B: TRUE/FALSE QUESTIONS   [10 MARKS]

ANSWER TRUE/FALSE

1. The scope statement describes how to make changes to the scope.
2. Activities in a project are related in some way. A dependency or a relationship pertains to the non-sequencing of activities or tasks.
3. Activity information is a required input to the other time management processes.
4. The goal of defining activities is to ensure that the project team completely understands all the work it must do as part of the project scope.
5. Even when the project scope is fairly well defined, many IT projects suffer from scope hope.
6. The full meaning of PERT is Program Evaluation and Resource Technique
7. Network diagrams are the preferred technique for showing activity sequencing
8. Bursts occur when a single node is followed by two or more activities.
9. A merge occurs when two or more nodes precede a single node
10. Project cost management includes the processes required to ensure that the project is completed within an approved budget

Section C   STRUCTURED QUESTIONS   [75 marks]

Question One (1)   [25 marks]

a) Determine the processes involved in project scope management, and why is good project scope management so important on IT projects?   (15 marks)

b) You are working on a project to develop a website for a marketing company. Discuss factors that impact on project scheduling control. Each point you raise carries a mark.   (10 marks)

Question Two (2)   [25 marks]

a) Construct an Activity on Node Network diagram.   (11 marks)

Activity	Duration (weeks)	Dependent on
A. Draw up and agree requirements	7	none
B. Select and order additional hardware	2	None
C. Develop and unit test new software	5	none
D. Install and test additional hardware	8	E
E. Test hardware backup and security procedures	10	A,B
F. Document new software	2	G,D
G. Install new software	5	E
H. System Test	8	G
I. Training	2	F
J- Deploy	3	H,I

b) Determine the Earliest Start and Latest Finish for each activity and insert on the nodes.   (11 marks)

c) State the critical path and compute it   (3 marks)

Question Three (3) [25 marks]

Earned value Formulas

Term	Formula
Earned Value (EV)	EV= PV to date *RP
Cost Variance (CV)	CV = EV- AC
Cost Performance Index (CPI)	CPI = EV/AVC
Schedule Performance Index (SPI)	SPI = EV/PV
Estimate at Completion (EAC)	EAC= BAC/CPI
Estimated time to complete	Original Time Estimate/SPI

a) Given the following information for a one-year project, answer the following questions. Recall that PV is the planned value, EV is the earned value, AC is the actual cost, and BAC is the budget at completion. Use the formulas in the above table.

> PV = $23,000
> EV = $20,000
> AC = $25,000
> BAC = $120,000

i. Calculate the cost variance, and state whether the work cost more than planned or less than planned? (3 marks)

ii. Calculate the Schedule variance, and state whether work took longer than planned or less than planned? (3 marks)

iii. Cost Performance? (3 marks)

b) How is the project doing in terms of budget? (3 marks)

c) Using SPI determine is work is on schedule or not. (3 marks)

d) Name and discuss five (5) basic principles of cost management in a project
(10 marks)

[THE END]

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MODERATOR'S REPORT: QUESTION PAPER & MEMORANDA

This report is to accompany every question paper and marking scheme/memorandum of model answers that is set and moderated.

PERSONAL INFORMATION				
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Course (e.g. Economics 1)	*Project Management*		Course Code *PTM721S*	
Exam Session/Date	*2 / January 2019*	Signature		
Exam Type (1st/2nd Opportunity)	*2nd opportunity*	Date *07 / 10 /2018*		

	Question paper		Memorandum	
CATEGORY	YES	NO	YES	NO
1. Front cover: The following information is available on the front cover				
The name of the institution	✓		✓	
The department within which the course falls	✓		✓	
The name and level of the course	✓		✓	
The course code	✓		✓	
The examination session and the year	✓		✓	
The duration of the paper	✓		✓	
The names of the Examiners and Moderator(s)	✓		✓	
Instructions to candidates, and such instructions are clear and unambiguous	✓		✓	
A list of all the material that is permissible for answering the question paper	✓		✓	
2. Standard of paper & memorandum			✓	
The standard of the questions is satisfactory and appropriate to the level of the	✓		✓	
The question paper comprises a range of question types, i.e., recall, comprehension, analytical etc.	✓		✓	
The questions cover all parts of the approved syllabus.	✓		✓	
There is no repetition of questions	✓		✓	
The question paper is accompanied by a memorandum of model answers	✓		✓	
The model answers are of satisfactory standard and cover all aspects of the questions	✓		✓	
Where appropriate, alternative answers are provided	✓		✓	
The memorandum is designed in such a way that people other than an examiner can	✓		✓	
3. Language & Format Question paper & memorandum				
The instructions and the questions are clear and unambiguous	✓		✓	
Does the paper contain any grammatical and spelling errors	✓		✓	
The paper is formatted clearly (e.g. questions are clearly separated)	✗	✓	✗	✓
The marks for each question are allocated clearly in the right hand margin of the question paper & the memorandum	✗	✓	✗	✓
The marks for each question, each section and the whole paper are calculated	✗	✓	✗	✓

4. Adjustments to question paper	YES	NO
Are there any questions in the paper that you recommend must be changed / adjusted? If yes, please indicate our adjustments/changes in space below.	✓	

Numbering of question is not consistant with the memo. Please see connections in the memo vs paper.

5. Adjustments to the memorandum/marking scheme	YES	NO
Are there any model answers in the memorandum/marking scheme that you recommend must be adjusted/changed? If yes, please specify them in the space below and indicate your adjustments/changes.	✓	

- Page 4 Question (i) must be under section 'C' not 'B'.

- Total marks per subsection B in section 'C' subsection B must total to 10 marks.

6. If you have other comments about the paper, please write them below. At least indicate your overall view of the standard of the examination papers. Please use extra paper if necessary.